

WHAT IS CLAIMED IS:

1 1. A communication network system, comprising:
2 a content server coupled with a transmitting location;
3 a content server coupled with a receiving center;
4 a QOS guaranteed network connecting the transmitting location and the
5 receiving center;
6 a non-QOS guaranteed network connecting the transmitting location and the
7 receiving center;
8 a buffer coupled with the transmitting location;
9 a buffer coupled with the receiving center;
10 a transmitting stream manager for routing traffic to either QOS guaranteed or
11 non-QOS guaranteed data networks;
12 a receiving stream manager for detecting demand for specific data at the
13 receiving center.

1 2. The communication network of claim 1 where the QOS guaranteed
2 data network is a QOS guaranteed quality of service (QOS) guaranteed network.

1 3. The communication network of claim 1 where the QOS guaranteed
2 data network is any packet based network.

1 4. The communication network of claim 1 where the QOS guaranteed
2 data network is a digital cable network between the transmitting location and the receiving
3 location.

1 5. The communication network of claim 1 where the non-QOS
2 guaranteed data network is an Internet Protocol (IP) based network.

1 6. The communication network of claim 1 where the non-QOS
2 guaranteed data network is any packet based network.

1 7. The communication network of claim 1 where the non-QOS
2 guaranteed data network is any communication network between the transmitting location
3 and the receiving location.

1 8. The buffer of claim 1, where the buffer is capable of holding the data
2 until all of the packets necessary to reconstruct the data is received.

1 9. The buffer of claim 1, where the buffer is able to reconstruct the data.

1 10. The receiving stream manager if claim 1 capable of detecting the
2 buffer level at the receiving center.

1 11. The receiving stream manager of claim 1 capable of sending request to
2 the stream manager at the transmitting location to increase the data transmission rate when
3 the buffer level at the receiving center is below a threshold.

1 12. The receiving stream manager of claim 1 capable of sending request to
2 the stream manager at the transmitting location to give higher priority to specific data.

1 13. The receiving stream manager of claim 1 capable of sending request to
2 the stream manager at the transmitting location to stop giving higher priority to specific data.

1 14. The transmitting stream manager of claim 1 capable of detecting the
2 buffer level at the transmitting location.

1 15. The transmitting stream manager of claim 1 capable of increasing data
2 transmission rate by utilizing the non-QOS guaranteed network when the buffer level at the
3 transmitting location is above a threshold.

1 16. The transmitting stream manager of claim 1 capable of increasing data
2 transmission rate by utilizing the non-QOS guaranteed network upon receiving request to do
3 so from the receiving stream manager.

1 17. The transmitting stream manager of claim 1 capable of receiving
2 request from the stream manager at the receiving center to give higher priority to specific
3 data.

1 18. The transmitting stream manager of claim 1 capable of redirecting
2 content to the non-QOS guaranteed network.

1 19. The transmitting stream manager of claim 1 capable of resuming
2 normal delivery of data to the receiving center.